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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,544	09/01/2006	Jean-Claude Bini	FR04 0028 US1	4847

25235 7590 07/13/2009

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EXAMINER	
DONADO, FRANK E	

ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
07/13/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/591,544	BINI ET AL.	
	Examiner	**Art Unit**	
	FRANK DONADO	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _23 April 2009_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-17_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-17_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 4/23/09 has been entered. No claims have been amended. No claims have been cancelled. No claims have been added. Claims 1-17 are currently pending in this application, with claims 1, 6 and 7 being independent.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 6-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Rosner, et al **(US Patent No. 7,149,213)**. From now on, Rosner, et al, will be referred to as Rosner.

Regarding claim 6, Rosner teaches a baseband processor for transmitting commands to a tunable radio-frequency subsystem, the radio-frequency subsystem for converting radio signals into baseband signals and vice-versa, in order for tuning the radio-frequency subsystem in synchronism with the processing of one signal frame, said baseband processor comprising: a memory **(Fig. 2, 36)** for storing a list of events wherein each event **("SCHEDULER" 50)** of said list is associated with an absolute

event time field indicating at which time from the beginning of the frame processing the event should be executed, an interface with the radio-frequency subsystem, designed to execute each event of said list of events in order to transmit to the radio-frequency subsystem the corresponding command, each event being executed during the frame processing at a time corresponding to the value of the associated absolute event time field, and a calculator to compute and store said list of events in the memory, a storage unit comprising a descriptor table **(Fig. 5, 61),** wherein each descriptor of the descriptor table comprises: a pointer field **(Fig. 5, 62)** to point to a definition of an operation to be carried out by said interface during the frame processing; an absolute operation time field indicating at which time from the beginning of the frame processing the corresponding operation should be carried out by said interface; an operation definition table comprising for each operation a definition of the operation, wherein each definition has a sequence of events to be executed by the interface in order to carry out said operation **(Fig. 3)**, wherein each event of the definition table is associated with a relative event time field indicating at which time from the beginning of the operation the corresponding event should be executed, and wherein said calculator is designed to automatically compute said list of events from the description and operation tables **(Rosner teaches a system that uses event tables to define commands to be executed during processing of a signal frame, data is preloaded into a WLAN module and RAM before initiating the transmission of a signal frame and a linked-list ensures that frame information is ready for the next transmission, thereby allowing storage space to be saved, a signal is transmitted to a baseband**

processor after the pre-loading of data/events related to the processing of the signal frame, a baseband processor and radio frequency broadband front end transmit and process signals between each other, a memory stores the frame processing information in a station table, a scheduler schedules when each signal will be processed in the processing of a signal frame, status information is used by both a scheduler and a prioritizer to decide/prioritize when signal transmissions will take place, a calculator is used to compute and store list of events, a set of descriptors that are stored in a table and contain a pointer that points to the starting address in system memory of the next software queue element of the complete software frame queue, Column 1, lines 63-66, Column 2, lines 25-36, Column 3, lines 8-10 and 40-46, Column 8, lines 59-61, Column 9, lines 37-39, Column 10, lines 32-37, Column 12, lines 46-52 and 60-66, Column 13, lines 23-26); and wherein said baseband processor tunes the tunable radio-frequency subsystem by performing a particular operation more than once from a same definition in the operation definition table pointed to by the pointer during the processing of and in synchronism with said one signal data frame **(A pointer points to the same definition of a frame pointer in a state table that was downloaded in the last download sequence and then used again during the processing and synchronization of said data frame when end of frame transmission has not been reached, Column 17, lines 50-61. Also, Step 86 in Figure 7 checks to see if the process is over. If no, the process repeats itself at Step 79 until the end of transmission of said one signal data frame at step 88).**

Regarding claim 7, Rosner teaches a method for transmitting commands to a tunable radio-frequency subsystem, the radio-frequency subsystem being designed to convert radio signals into baseband signals and vice-versa, in order to tune the radio-frequency subsystem in synchronism with the processing of a signal frame, the method comprising the steps of: recording in a memory a list of events wherein each event of said list is associated with an absolute event time field, the absolute event time field indicating at which time from the beginning of the frame processing the event should be executed; executing each event of said list of events in order to transmit corresponding commands to the radio-frequency subsystem, each event being executed, during the frame processing, at a time corresponding to the value of the associated absolute event time field; computing and storing said list of events in the memory, and wherein the method further comprises the steps of: recording in a storage unit a descriptor table, wherein each descriptor of the descriptor table comprises: a pointer field designed to point to a definition of an operation to be carried out by said interface during the frame processing; an absolute operation time field indicating at which time from the beginning of the frame processing the corresponding operation should be carried out by said interface; an operation definition table comprising for each operation a definition of the operation, wherein each definition has a sequence of events to be executed by the interface in order to carry out said operation, each event of the definition table being associated with a relative event time field indicating at which time from the beginning of the operation the corresponding event should be executed; and automatically computing said list of events from the descriptor and operation tables

(Rosner teaches a system that uses event tables to define commands to be executed during processing of a signal frame, data is preloaded into a WLAN module and RAM before initiating the transmission of a signal frame and a linked-list ensures that frame information is ready for the next transmission, thereby allowing storage space to be saved, a signal is transmitted to a baseband processor after the pre-loading of data/events related to the processing of the signal frame, a baseband processor and radio frequency broadband front end transmit and process signals between each other, a memory stores the frame processing information in a station table, a scheduler schedules when each signal will be processed in the processing a signal frame, status information is used by both a scheduler and a prioritizer to decide/prioritize when signal transmissions will take place, a calculator is used to compute and store list of events, a set of descriptors that are stored in a table and contain a pointer that points to the starting address in system memory of the next software queue element of the complete software frame queue, Column 1, lines 63-66, Column 2, lines 25-36, Column 3, lines 8-10 and 40-46, Column 8, lines 59-61, Column 9, lines 37-39, Column 10, lines 32-37, Column 12, lines 46-52 and 60-66, Column 13, lines 23-26); and the baseband processor tunes the tunable radio-frequency subsystem by performing a particular operation more than once .from a stone definition in the operation definition table pointed to by the pointer during the processing of and in synchronism with said one signal data frame **(A pointer points to the same definition of a frame pointer in a state table that was downloaded in the last download**

sequence and then used again during the processing and synchronization of said data frame when end of frame transmission has not been reached, Column 17, lines 50-61. Also, Step 86 in Figure 7 checks to see if the process is over. If no, the process repeats itself at Step 79 until the end of transmission of said one signal data frame at step 88).

Regarding claim 8, Rosner teaches a storage unit intended to be used in a baseband processor according to claim 6, wherein the storage unit comprises: a descriptor table comprising for each descriptor: a pointer field to point to a definition of an operation to be carried out by said interface during the frame processing, an absolute operation time field indicating at which time from the beginning of the frame processing the corresponding operation should be carried out by said interface, an operation definition table comprising for each operation a definition of the operation, each definition having a sequence of events to be executed by the interface in order to carry out said operation, each event of the definition table being associated with a relative event time field indicating at which time from the beginning of the operation the corresponding event should be executed **(Rosner teaches a system that uses event tables to define commands to be executed during processing of a signal frame, data is preloaded into a WLAN module and RAM before initiating the transmission of a signal frame and a linked-list ensures that frame information is ready for the next transmission, thereby allowing storage space to be saved, a signal is transmitted to a baseband processor after the pre-loading of data/events**

related to the processing of the signal frame, a baseband processor and radio frequency broadband front end transmit and process signals between each other, a memory stores the frame processing information in a station table, a scheduler schedules when each signal will be processed in the processing a signal frame, status information is used by both a scheduler and a prioritizer to decide/prioritize when signal transmissions will take place, a calculator is used to compute and store list of events, a set of descriptors that are stored in a table and contain a pointer that points to the starting address in system memory of the next software queue element of the complete software frame queue, Column 1, lines 63-66, Column 2, lines 25-36, Column 3, lines 8-10 and 40-46, Column 8, lines 59-61, Column 9, lines 37-39, Column 10, lines 32-37, Column 12, lines 46-52 and 60-66, Column 13, lines 23-26).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosner, in view of Kim **(US PG Publication 2002/0065045)**.

Regarding claim 1, Rosner teaches a radio telecommunication apparatus incorporating a baseband processor for transmitting commands to a tunable radio-frequency subsystem, said radio-frequency subsystem being designed to convert radio signals into baseband signals and vice-versa, for tuning said radio-frequency subsystem in synchronism with the processing of one signal frame, said baseband processor comprising: a memory **(Fig. 2, 36)** to store a list of events wherein each event **("SCHEDULER" 50)** of said list is associated with an absolute event time field indicating at which time from the beginning of the frame processing the event should be executed; an interface with the radio-frequency subsystem, designed to execute each

event of said list of events in order to transmit to the radio-frequency subsystem the corresponding command, each event being executed during the frame processing at a time corresponding to the value of the associated absolute event time field, and a calculator to compute and store said list of events in the memory; a storage unit comprising a descriptor table **(Fig. 5, 61),** wherein each descriptor of the descriptor table comprises: a pointer field **(Fig. 5, 62)** to point to a definition of an operation to be carried out by said interface during the frame processing; an absolute operation time field indicating at which time from the beginning of the frame processing the corresponding operation should be carried out by said interface; and an operation definition table comprising for each operation a definition of the operation, wherein each definition has a sequence of events to be executed by the interface in order to carry out said operation **(Fig. 3)**, wherein each event of the definition table is associated with a relative event time field indicating at which time from the beginning of the operation the corresponding event should be executed, and wherein said calculator is designed to automatically compute said list of events from the description and operation tables **(Rosner teaches a system that uses event tables to define commands to be executed during processing of a signal frame, data is preloaded into a WLAN module and RAM before initiating the transmission of a signal frame and a linked-list ensures that frame information is ready for the next transmission, thereby allowing storage space to be saved, a signal is transmitted to a baseband processor after the pre-loading of data/events related to the processing of the signal frame, a baseband processor and radio frequency broadband front end**

transmit and process signals between each other, a memory stores the frame processing information in a station table, a scheduler schedules when each signal will be processed in the processing a signal frame, status information is used by both a scheduler and a prioritizer to decide/prioritize when signal transmissions will take place, a calculator is used to compute and store list of events, a set of descriptors that are stored in a table and contain a pointer that points to the starting address in system memory of the next software queue element of the complete software frame queue, Column 1, lines 63-66, Column 2, lines 25-36, Column 3, lines 8-10 and 40-46, Column 8, lines 59-61, Column 9, lines 37-39, Column 10, lines 32-37, Column 12, lines 46-52 and 60-66, Column 13, lines 23-26); and wherein said baseband processor tunes the tunable radio-frequency subsystem by performing a particular operation more than once from a same definition in the operation definition table pointed to by the pointer during the processing of and in synchronism with said one signal data frame **(A pointer points to the same definition of a frame pointer in a state table that was downloaded in the last download sequence and then used again during the processing and synchronization of said data frame when end of frame transmission has not been reached, Column 17, lines 50-61. Also, Step 86 in Figure 7 checks to see if the process is over. If no, the process repeats itself at Step 79 until the end of transmission of said one signal data frame at step 88).** Rosner fails to teach the radio telecommunication apparatus comprising a mobile phone. Kim teaches a radio-frequency subsystem in combination with a baseband processor used in wireless

communication within a mobile phone for transmitting frames of information that include command, event and data packets **(Paragraph 17, lines 1-3 and Paragraph 31, lines 1-8)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Rosner to use a mobile phone of Kim for the benefit of transmitting voice data frames.

Regarding claim 2, Rosner, in view of Kim, teaches the limitations of claim 1. Rosner further teaches the storage unit further comprises a data table having parameter values, at least one definition of the operation definition table has an event associated with an unknown parameter value, each descriptor which comprises a pointer field pointing to an operation definition, definition of which comprises an event associated with an unknown parameter value is associated with a parameter value of the data table, and the calculator replaces the unknown parameter value in a definition with the parameter value associated with the descriptor comprising a pointer field pointing to this definition, in order to compute said list of events **(A parameter value called a software queue element has a 0 value initially stored in a frame pointer to indicate it is the last software queue element for the current transaction as well as a parameter in the software queue element called a build valid flag, wherein the build valid flag parameter indicates when information is ready for transmission. Build valid flag has a 0 value initially stored to indicate no information is yet available for the transmission, all software queue elements are built and the build valid flag parameter value is now replaced by a known value indicating information is ready**

for transmission after all elements of the software queue are built and stored for the amount of transmission data, transmission rates and header lengths are pre-calculated prior to initiating the transmission, Column 13, lines 7-14, Column 15, lines 16-24, 29-31 and 47-54).

Regarding claim 3, Rosner, in view of Kim, teaches the limitations of claim 1. Rosner further teaches the memory comprises a non-dedicated random access memory which is connected to the calculator and to the interface through a shared memory access bus wherein the calculator stores the list of events in said memory using the shared memory access bus, and the interface reads the list of events in said memory using the shared memory access bus **(RAM and ROM are included in the computer system, memory as well as a calculator used to calculate transmission rates and header lengths, a PCI bus through which a WLAN is interfaced with a host section that includes the host processor and system memory that stores transmission frame information, Column 3, lines 5-7, Column 5, lines 30-32, Column 13, 45-51, Column 15, lines 50-54 and Figure 2).**

Regarding claim 4, Rosner, in view of Kim, teaches the limitations of claim 2. Rosner further teaches the interface reads the list of events using direct memory access (DMA) technologies **(A DMA buffer is used to gain direct access to memory during frame transmission, Column 8, lines 28-30 and 36-38 and Figure 2).**

Regarding claim 5, Rosner, in view of Kim, teaches the limitations of claim 1. Rosner further teaches the calculator comprises a main processor programmed to update the description table in the storage unit in order to tune the radio-frequency subsystem for the processing of the next frame, and a coprocessor associated with the main processor, the coprocessor being able to compute said list of events from the stored tables in the storage unit **(A host processor is interfaced with system memory where transmission data is stored and updated through a linked-list and values of a build valid flag are updated with known values before processing of the next frame, and a baseband processor works with a frame composer to processes a signal frame, wherein the baseband processor processes the preamble part of each signal frame that come from the stored table information, the frame composer forms all of the transmission frames, except for the preamble which is processed by the baseband processor, and transmission rates are pre-calculated within said frame composer, Column 5, lines 23-26, Column 9, lines 14-18, Column 12, lines 60-66, Column 15, lines 46-53, Column 16, lines 15-20).**

8. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosner, in view of Kim, and further in view of Vanttinen **(US PG Publication 2001/0024433)**.

Regarding claims 9-11, Rosner, in view of Kim, teaches the limitations of claim 1. Rosner, in view of Kim, does not teach the frame being processed comprises a Global

System for Mobile Communications (GSM) frame, EGPRS frame and/or GPRS frame. Vantinnen teaches the frame being processed comprises a Global System for Mobile Communications (GSM) frame, EGPRS frame and a GPRS frame **(A packet transmission method is employed that may be adapted to utilize GSM, EGPRS and GPRS as the mode of transmission, where radio frequency signals are converted to baseband signals, Paragraph 17, lines 1-3, Paragraph 27, lines 1-7, Paragraph 36, lines 1-3, Paragraph 38, lines 14-17 and Paragraph 39, lines 1-3)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Rosner, in view of Kim, to incorporate the features of the GSM frame, EGPRS frame and/or GPRS frame to increase the flexibility of the transmission.

9. Claims 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosner, in view of Vantinnen.

Regarding claims 12 -17, Rosner teaches the limitations of claims 6 and 7, respectively. Rosner does not teach the frame being processed comprises a Global System for Mobile Communications (GSM) frame, EGPRS frame and/or GPRS frame. Vantinnen teaches the frame being processed comprises a Global System for Mobile Communications (GSM) frame, EGPRS frame and GPRS frame **(A packet transmission method is employed that may be adapted to utilize GSM, EGPRS and GPRS as the mode of transmission, where radio frequency signals are converted to baseband signals, Paragraph 17, lines 1-3, Paragraph 27, lines 1-7,**

Paragraph 36, lines 1-3, Paragraph 38, lines 14-17 and Paragraph 39, lines 1-3). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Rosner, in view of Kim, to incorporate the features of the GSM frame, EGPRS frame and/or GPRS frame to increase the flexibility of the transmission.

Response to Arguments

10. Applicant's arguments regarding claims 1-17, filed 4/23/09, have been fully considered but they are not persuasive for the following reasons:

Regarding the Office failing to establish each feature (see below) and of there being no teaching or suggestion of said features, said features are established in the following way: a storage unit comprising: a descriptor table (Fig. 5, software queue element 60 stores descriptors 62, 65 and 67 that comprise descriptors 61) wherein for each descriptor a pointer field (Frame pointer 62 of Fig. 5) points to a definition of an operation to be carried out by said interface during the frame processing, an absolute operation time field indicating at which time from the beginning of the frame processing the corresponding operation should be carried out by said interface (Frame pointer 62 points to the starting address of the next S/W que element 60 of the complete S/W frame queue, where S/W Queue element contains the sequence of events to be carried out during transmission of a frame. Baseband interface 47 carries out transmission of real-time information to statistics block 48. This information is used to modify Physical Layer Convergence Protocol (PLCP) timing information to real-time information based on a previous transmission, where PLCP timing information is obtained from a software

frame queue. PLCP contains a preamble and header frame information, which are both types of frame information that occur at the beginning of a frame, Column 12, lines 49-52, Column 4, lines 18-30, Column 9, lines 30-46 and Column 10, lines 12-13), an operation definition table comprising for each operation a definition of the operation, each definition having a sequence of events to be executed by the interface in order to carry out said operation (S/W Queue Element 60 in Figure 5 defines the sequence of events to be carried out during transmission of a frame, Column 11, lines 66-67 and Column 12, lines 1-7 and 49-52), each event of the definition table being associated with a relative event time field indicating at which time from the beginning of the operation the corresponding event should be executed (PLCP timing information may be modified, and transaction times 74, 129 and 138 are shown in Figure 5. Also see Column 9, lines 34-38).

Regarding the Office failing to establish the prior art saves storage and processing by performing a particular operation more than once from a same definition table pointed to by a pointer during the processing of and in synchronism with one signal data frame, Rosner teaches a linked-list that eliminates the need for a dedicated additional memory through the use of the frame pointer 62, Column 12, lines 57-67.

Regarding there being no teaching of a calculator to compute and store said list of events in memory, software frame queue 60 of Figure 5 is stored in system memory 30 in Figure 2 and system controller 33 receives and processes said information,

Column 5, lines 56-60.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANK DONADO whose telephone number is (571) 270-5361. The examiner can normally be reached Monday-Friday, 9:30 am-6 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on 571-272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-270-6361.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-273-8300.

/Frank Donado/
Art Unit 2617

/Rafael Pérez-Gutiérrez/

Supervisory Patent Examiner, Art Unit 2617